ABSTRACT

VIBROACOUSTIC EMULATOR

The present invention is directed towards a family of vibroacoustic emulators to simulate the vibroacoustic characteristics of components of an electronic device. Specific embodiments for simulating a hard disk drive comprise a housing and a vibroacoustic generator coupled to the housing. Various embodiments enable acoustic emulation through a cover side and base side, out-of-plane vibrational emulation to simulate hard disk drive during seek periods, and in-plane vibrational emulation to simulate a hard-disk drive during idle periods. Methods for using the vibroacoustic emulators to characterize system noise are also disclosed.